

PRELIMINARY REPORT ON HOPPER DREDGE OPERATIONS

IN THE BRAZOS ISLAND HARBOR PROJECT

DECEMBER 2008

On August 30, 2008, the contract hopper dredge *B.E. Lindholm* began dredging in the Entrance Channel of the Brazos Island Harbor Project. Contract specifications required dredging for an estimated 10 days between station numbers -6+400 and -13+000 with the objective of removing approximately 350,000 CY of shoal material. The required depth of dredging was 46 feet below MLT, with 2 feet of allowable overdepth dredging.

Dredging began on August 30, 2008, and was completed on November 15, 2008. Operations were continuous from August 30 until September 5, dredging 51 loads with an estimated 130,933 cubic yards (CY) of sediment; then the dredge went to the shipyard for repairs. Work was resumed on October 31 and continued until November 15. During this timeframe, 237,772 CY of material were removed in 95 loads. Completed work included excavating about 368,705 CY in 146 loads. This material was deposited into the nearshore berm at Placement Area No. 1A. This work was conducted as part of a contract for dredging the Mississippi River. For this reason, the load numbering began at 212.

The dredge was equipped with rigid draghead turtle deflectors, and 100% inflow screening with a 4-inch square mesh. NMFS-approved turtle observers provided 24-hour/day monitoring of dragheads and screens for each load cycle. The observers were employed by East Coast Observers, Inc. under subcontract to the dredging contractor, Weeks Marine, Inc.

During the performance of this dredging, four turtle takes were experienced, two loggerheads, one green and one Kemp's ridley. The first take was the ridley on November 3 in load 283, the two loggerheads were taken on November 8 and November 11 in loads 326 and 337, respectively. The green turtle was taken on November 12 in load 343. The surface water temperature during these takes ranged from about 24.4°C to 26.1°C.

Relocation trawling was conducted using two trawlers working on a 24-hour daily basis prior to, and during dredging operations. Trawling operations were initiated on August 29. Operation of these vessels was coordinated to provide better channel coverage, and provide opportunity to release captured turtles while maintaining continuous trawling by at least one boat. A total of 1,231 tows were conducted. During this effort five turtles were tagged and relocated, three loggerheads, one Kemp's ridley, and one green.

Trawling and tagging data, observer and incident reports, can all be accessed at the USACE Sea Turtle Data Warehouse. The link is:

<http://el.erdc.usace.army.mil/seaturtles/project.cfm?Id=605&Code=Project>.

Coordination was conducted with the STSSN. There were no reports of stranded turtles that bore injuries that might be consistent with a potential encounter with a hopper dredge.

Material dredged consisted mostly of sand, mud and clay. There were no indications that the material or debris caused any problems such as screen clogs.